PCW_09_22 Coordinate transformations v6

Question 1

Consider the two functions f and g, where g is defined as a transformation of f:

$$g[x] \;=\; 8 \cdot f\left[\frac{x+2}{7}\right] + 3$$

For point (a, b) on curve f there is a corresponding point on the curve g. Write the coordinate transformation.

Question 2

Consider the two functions f and g, where g is defined as a transformation of f:

$$g[x] \;=\; \frac{f[8x+2]}{3} - 9$$

For point (a, b) on curve f there is a corresponding point on the curve g. Write the coordinate transformation.

Question 3

Consider the two functions f and g, where g is defined as a transformation of f:

$$g[x] \;=\; \frac{f\left[\frac{x}{5}-6\right]-9}{4}$$

For point (a, b) on curve f there is a corresponding point on the curve g. Write the coordinate transformation.

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Question 4

Consider the two functions f and g, where g is defined as a transformation of f:

$$g[x] \;=\; 6 \cdot (f[7x - 3] - 9)$$

For point (a, b) on curve f there is a corresponding point on the curve g. Write the coordinate transformation.

Question 5

Consider the two functions f and g, where g is defined as a transformation of f:

$$g[x] \;=\; \frac{f\left[\frac{x}{6} + 9\right] + 7}{4}$$

For point (a, b) on curve f there is a corresponding point on the curve g. Write the coordinate transformation.

Question 6

Consider the two functions f and g, where g is defined as a transformation of f:

$$g[x] \;=\; 2 \cdot (f[7\,(x - 4)] + 6)$$

For point (a, b) on curve f there is a corresponding point on the curve g. Write the coordinate transformation.